In the Claims:

Please amend the claims as follows:

1. (previously amended) A method for growing large, single polytype, compound crystals of one of a) silicon carbide, b) a group III-nitride c) alloys thereof, the method comprising:

providing, in a heated growth enclosure comprising a seed crystal, a mixture of vapor species containing at least the elements of the compound crystal, in such a way that, at least one of the elements is continuously fed into the enclosure through an opening upstream of a growth surface of said crystal,

removing from the enclosure through an opening downstream of the growth surface of said crystal a continuous flow of remaining vapor species not having been deposited under conditions yielding to growth of said crystal, and

providing in the enclosure an etching gas flow containing at least one halogen element, in such a way that, said gas flow is heated and decreases a deposition rate of solid phases downstream of the growth surface of said crystal.

2. (previously amended) The method according to claim 1, further comprising:

heating at least one region of the growth enclosure in the upstream vicinity of said crystal to a temperature of at least 1900 °C,

continuously feeding at least a silicon gas precursor, and either an hydrocarbon gas precursor or a combination thereof with vapor sublimed from a solid or liquid source towards

said crystal, and

providing said additional etch gas flow comprising at least Cl or F.

3. (original) The method according to claim 2, further comprising:

providing said additional etch gas flow consisting of chlorine (Cl_2) or hydrogen chloride (HCl) or hydrogen (H_2) or fluorine (F_2) or a mixture thereof.

4. (previously amended) The method according to claim 1, further comprising:

heating at least one region of the growth enclosure in the upstream vicinity of said crystal to a temperature of at least 1100 °C,

continuously feeding at least a gallium or aluminum metalorganic precursor and a nitrogen containing gas towards said crystal, and

providing said additional etch gas flow.

5. (original) The method according to claim 4, further comprising:

providing said additional etch gas flow consisting of chlorine (Cl_2) or hydrogen chloride (HCl) or hydrogen (H_2) or hydrogen iodide (HI) or iodine (I_2) or a mixture thereof.

6. (original) The method according to claim 1, further comprising:

placing the seed on a seed holder being mounted on a rotating and pulled shaft and

feeding said additional etch gas flow through the shaft to be delivered downstream of the growth surface of said crystal.

7. (original) The method according to claims 1, further comprising:

feeding said additional etch gas flow into at least one channel emerging from a heated crucible into a region upstream of an initial position of the seed crystal before it is pulled for a substantial amount of time.

8. (previously amended) The method according to claim 1, wherein said additional etch gas flow is fed into a conduit formed between an outer heater and an inner crucible, said inner crucible extending along a symmetry axis parallel to said crystal growth direction and terminating in the immediate upstream vicinity of the initial seed crystal position.

9. (previously amended) The method according to claim 1, further comprising:

continuously feeding a carrier gas with the vapor species mixture comprising at least the elements of the compound crystal, said carrier gas comprising hydrogen, nitrogen, helium or argon or a blend thereof.

10. (previously amended) The method according to claim 1, where a halogen to hydrogen ratio of the etching gas flow is adjusted to a value operative to prevent formation of solid deposits along a surface desired to be maintained free of solid deposits.

11. (previously amended) The method according to claim 1, further comprising:

utilizing a flow rate and a delivery means of the etching gas flow to control a crystal diameter.

12-17 (cancelled)

18. (previously amended) The method according to claim 2, wherein the at least a silicon gas precursor comprises silane, a chlorosilane or a methylsilane.

19. (previously amended) The method according to claim 2, wherein the at least one region of the growth enclosure in the upstream vicinity of the crystal is heated to a temperature in a range of 2000 to 2600 °C.

20. (previously amended) The method according to claim 4, wherein the at least one region of the growth enclosure in the upstream vicinity of said crystal is heated to a temperature in the range of 1200 to 2200 °C.

21. (previously amended) The method according to claim 4, wherein the additional etch gas flow comprises Cl or I.

22. (previously amended) The method according to claim 11, wherein the crystal diameter is controlled to either maintain the crystal substantially cylindrical or allow the crystal to expand.